

Maintenance and Winter Operations

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Routine Maintenance

Just like most everything else, Indiana's roadways require maintenance to meet the mission and goals of INDOT. A majority of the responsibility for roadway maintenance is in the hands of maintenance workers who work at INDOT's 32 subdistricts, four Toll Road maintenance units and seven district offices.

Drainage Control

The primary mission of these workers is to extend the life of roadways. Most maintenance activities serve to take water away from and out from under the roadway and into creeks or rivers.

The crews patch potholes to make the road's surface smoother and to keep water out from under the pavement. They seal the gaps between the road and shoulders so water flows past this seam, and they seal the shoulders so water flows away from the travel lanes. They ditch the roadside so water flows freely to the creeks and rivers. They also hand-clean bridge decks and

flush the substructures of bridges to reduce the deteriorating effects of winter materials. They clean the drainage structures to make sure water flows freely through and from them to the ditches.

Human and Weather Elements

While many of the activities are proactive to extend the life of the roads, other maintenance activities are reactionary as a result of weather, accidents and other events outside of INDOT's control. The most notable of these activities is

snow removal, but other activities for which maintenance personnel are responsible include pipe replacement, bump repair, mowing and trimming, tree trimming, fence repair, bridge deck repair, attenuator/guardrail repair and replacement and litter pickup.

These workers are always prepared to respond to situations that occur. Many times INDOT's maintenance workers are called outside normal business hours to work 12 to 16 hour shifts to keep the roads passable for the driving public during snow events.

Did you know... ?

During 2002, maintenance crews from INDOT's six geographic districts:

- Sealed almost 3,300 miles of shoulders.
- Sealed 6,190 miles of cracks.
- Worked on 874,943 feet of ditches.
- Replaced 326 pipes.
- Cleaned 73,601 drainage structures.
- Cleaned/flushed 8,916 bridges.



Ready for Winter

During the winter months, INDOT's subdistricts focus the majority of their attention on combating snow and ice. Preparations at INDOT's 122 maintenance units begin as early as September each year.

INDOT maintains more than 1,100 trucks in its fleet to clear state roadways. Subdistrict offices and units also house 136 salt domes or storage buildings to store de-icing materials. These range in size from 400 to 7,600 tons in capacity.

When Inclement Weather Hits

Rapidly changing weather conditions are monitored across the state through a contracted weather service. Sensors in the pavement assist with pavement condition forecasts, allowing INDOT to treat the highways before the temperature drops below the critical 32 degree mark.

Drivers are on the roadway before, during and after storms move through. Snow routes usually take two to three hours to clear.

Materials

INDOT is increasing its use of anti-icing applications. Before precipitation falls, liquids, primarily a salt brine solution, are applied to the roadways. The liquid in the brine evaporates, leaving a layer of salt that is activated as soon as moisture touches the pavement. Anti-icing is performed in several metropolitan areas and on high volume roadways.

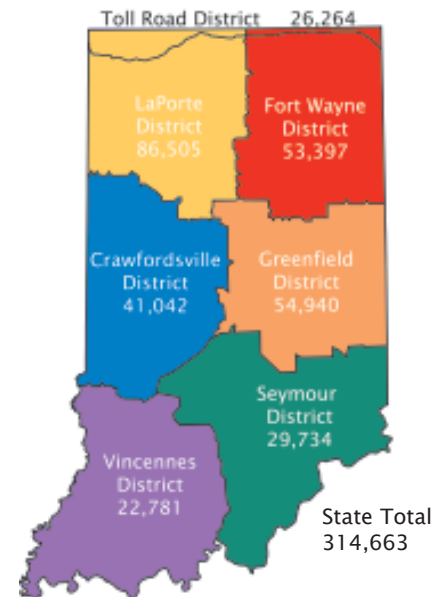
Rock salt is the most widely used de-icing agent because of its cost and effectiveness. When the temperature remains above 25 degrees, salt can melt snow and ice and prevent the bonding of compacted snow to the pavement's surface. Once the temperature falls below 25 degrees, salt is less effective. INDOT often adds a small amount of liquid, usually calcium chloride or magnesium chloride, to increase the salt's effectiveness.

The geography and unpredictable weather patterns in Indiana make planning for winter a challenge across the state. Often only

one-third of the state is hit by a winter storm, and salt usage varies greatly by district.

The map below shows an average of how many tons of salt each of INDOT's districts used in the past 10 years.

Yearly Average Salt Usage (in tons)



Our people, Our values

Cory McElhaney **Bluffton Subdistrict**



Cory McElhaney is a maintenance worker at the Bluffton Subdistrict. He came to work at INDOT three years ago because he enjoys working outdoors.

In October 2002, Cory won INDOT's annual Safety Truck Rodeo at the Indianapolis Motor Speedway, beating out drivers from around the state. Before making it to the state finals, Cory won the competitions at the Bluffton Subdistrict and Fort Wayne District.

Cory's favorite part of working at INDOT is mowing and plowing snow. He would like for people to know, "INDOT employees are dedicated professionals and deserve more credit than they receive."

